



MODEL T27697 & T27699 6" & 8" HELICAL CUTTERHEADS INSTALLATION INSTRUCTIONS

For questions or help with this product contact Tech Support at (570) 546-9663 or techsupport@grizzly.com

These indexable insert helical cutterheads are designed to replace cutterheads from the following Grizzly models:

T27697..... G0490, G0490X
T27699 G0604, G0604X

! WARNING

Do NOT modify or alter these cutterheads to make them fit other makes or models of jointers for which they aren't designed. Doing so could result in property damage or serious personal injury.

The total installation/setup procedure takes approximately one hour. Read these instructions thoroughly before beginning. Also, we strongly recommend replacing the old cutterhead bearings at the time of installation. The T27699 uses (2) 6004ZZ bearings. The T27697 uses (1) 6204-2RS bearing and (1) 6205-2RS bearing.

Note: Not all pictures in these instructions will exactly reflect your machine. Some photos are provided for representation purposes only to help you better understand the instructions given.

Specifications

T27697

Maximum Width of Cut.....8"
Cutterhead Diameter 85mm
Number of Indexable Carbide Inserts 40
Indexable Carbide Insert Size ... 15 x 15 x 2.5mm

T27699

Maximum Width of Cut.....6"
Cutterhead Diameter 75mm
Number of Indexable Carbide Inserts 30
Indexable Carbide Insert Size ... 15 x 15 x 2.5mm

Recommended Tools

Hex Wrench 4, 6mm..... 1 EA
Wrench/Socket 10, 13, 17, 19mm 1 EA
Precision Straightedge 1
Feeler Gauge Set..... 1
Pair of Heavy Leather Gloves 1
Safety Glasses (per person)..... 1
Pulley Puller..... 1
Rubber Dead Blow Hammer 1
Wood Block 12" 4x4 1
Wood Blocks 8" 2x4 2
Shop Rag 1
Degreaser..... As Needed
Flat Piece of Scrap Wood 1

Inventory (Figure 1)

A. Helical Cutterhead..... 1
B. Torx Drivers T20 2
C. Torx L-Wrenches T20 2
D. Indexable Carbide Inserts 15 x 15 x 2.5 5
E. Flat Head Torx Screws T20 M6-1 x 15..... 3

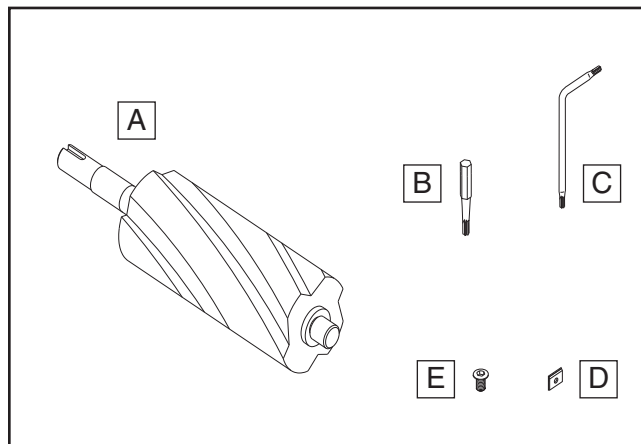


Figure 1. Helical cutterhead inventory.

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Removing Existing Cutterhead

1. Disconnect machine from power!
2. Remove jointer fence and cutterhead guard.
3. Remove rabbet extension table, rear cover and belt guard, then remove V-belt from pulleys.
4. Loosen infeed and outfeed table locks, then loosen jam nuts and positive stop bolts located at back of machine.

Note: When lowering, make sure fence support does not come in contact with cutterhead pulley.

5. Lower both beds to make enough room for cutterhead to come out, as shown in **Figure 2**.



Figure 2. Example of jointer disassembly **Steps 1-5.**

6. Remove knives or reverse their mounting direction so blades face toward cutterhead.

WARNING

Jointer knives are extremely sharp. You must remove the jointer knives, or mount the knives blade side down to avoid the risk of serious personal injury during the following steps.

7. Remove cap screw and flat washer securing cutterhead pulley, then remove pulley and key from cutterhead.

—If pulley is difficult to remove, use a pulley puller (see **Accessories, Page 6**, if you do not have a pulley puller).

8. Remove cap screws and lock washers that secure both bearing blocks, as shown in **Figure 3**.
9. Mark side of front bearing block that faces front of machine (see **Figure 3**) with tape or a felt marker to make it easier to re-install bearing blocks later.

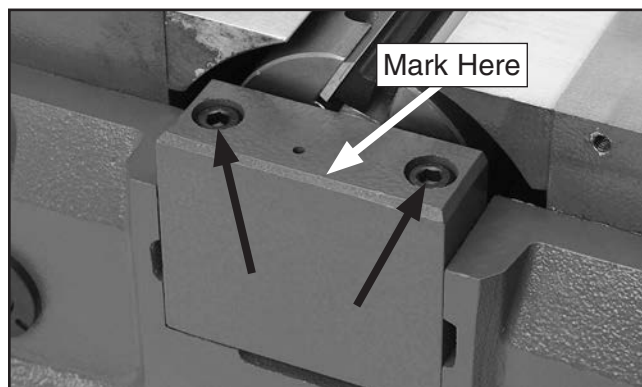


Figure 3. Location for removing cap screws and lock washers on front bearing block.

10. Carefully remove bearing blocks and cutterhead from casting (see **Figure 4**).

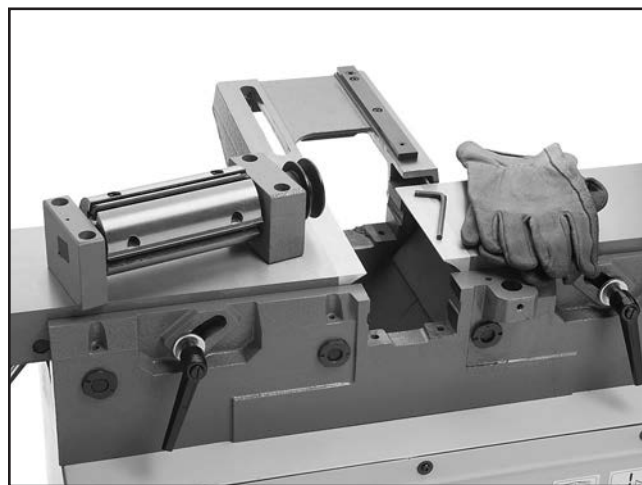


Figure 4. Example of cutterhead removed.



Note: Your cutterhead may have paper or metal shims stuck to the bearing block or the part of the casting where the bearing block rests. These were included at the factory when they calibrated your cutterhead even with the outfeed table. If you see these, carefully pull them off and set them aside for later use, or keep them with your cutterhead in the event that you reinstall it later. Also, mark the side of the cutterhead where they were used, so the future install will go smoothly. Your new cutterhead may or may not need these.

11. Cut a 2x4 into two 8" pieces.
12. Place cutterhead assembly on workbench or flat surface with pulley side of cutterhead shaft facing up, then place 2x4 blocks under rear bearing block, as shown in **Figure 5**.

Tip: Wrapping tape around blocks can help hold them together during the next step.

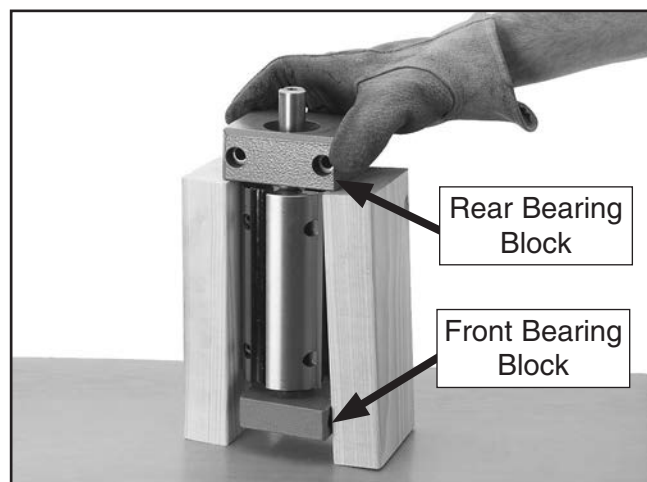


Figure 5. Removing rear bearing block.

13. Tap top of cutterhead shaft with a rubber dead blow hammer and a 4x4 block. This should separate cutterhead from rear bearing block.
14. Remove front bearing block and bearing from cutterhead—if it has not already dropped off. **Figure 6** shows disassembled components.

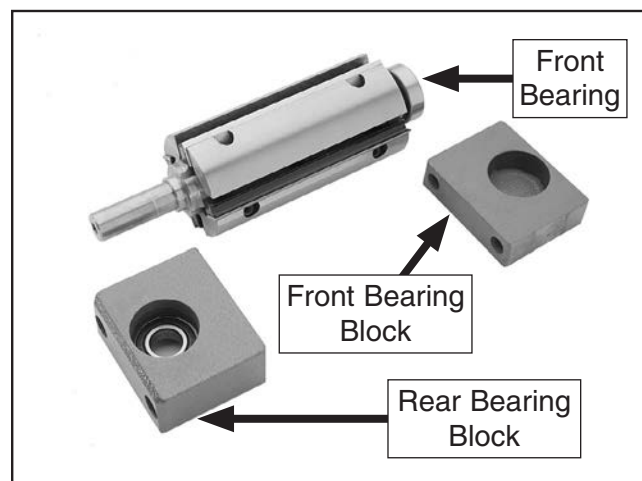


Figure 6. Disassembled cutterhead assembly.

⚠ WARNING

Jointer carbide inserts are extremely sharp. Wear leather gloves to avoid the risk of serious personal injury during the following steps.

15. Install or replace bearing removed in **Step 14** onto front end (shorter shaft) of your Model T27697/T27699 helical cutterhead, then press bearing into front bearing block.
16. Stand cutterhead upright between two 8" 2x4 blocks, then use a piece of scrap wood and a dead blow hammer to seat cutterhead into bearing blocks, as shown in **Figure 7**.

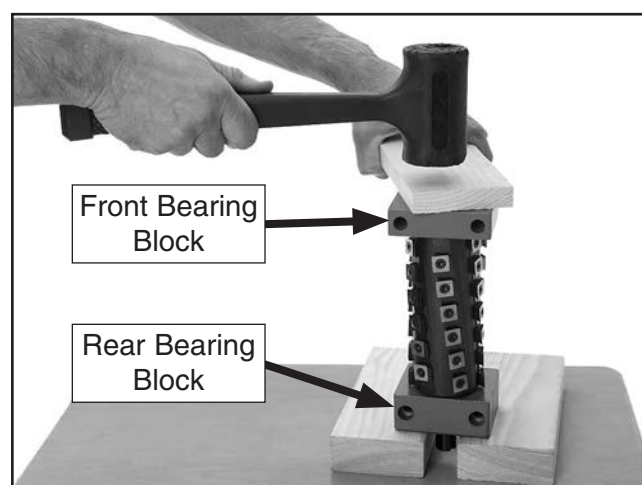


Figure 7. Seating rear bearing block onto helical cutterhead.



17. With a rag, wipe down part of casting where bearing blocks will rest to remove sawdust.
18. While keeping bearing blocks pressed against helical cutterhead, move cutterhead to jointer. Using mark from **Step 9**, install cutterhead so front bearing block is positioned at front of machine (see **Figure 8**). Be careful not to chip carbide inserts on jointer beds.

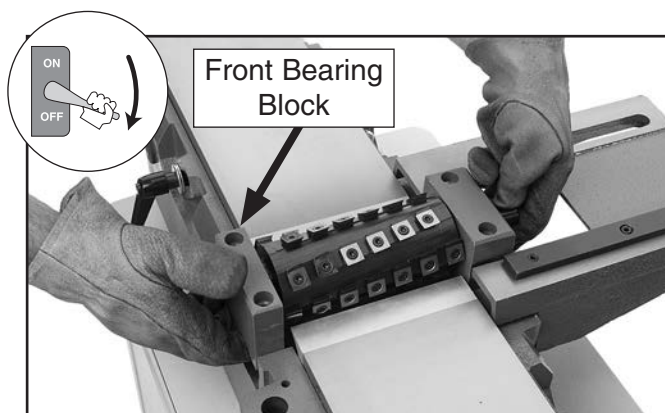


Figure 8. Example of installing helical cutterhead.

19. Secure bearing blocks with cap screws and lock washers removed in **Step 8** (see **Figure 9**).

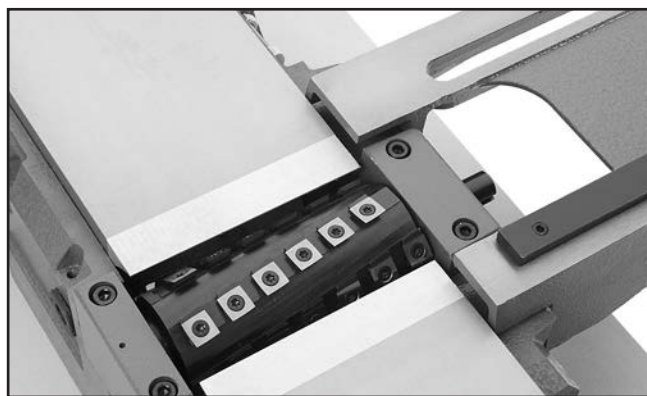


Figure 9. Example of helical cutterhead installed.

20. Install key on cutterhead keyway, push pulley onto cutterhead shaft, then secure pulley with cap screw and flat washer removed in **Step 7**. Ensure both pulley set screws are tight.

21. Using straightedge and feeler gauge set, inspect cutterhead parallelism with outfeed table as shown in **Figure 10**. With straightedge in position, raise or lower outfeed table until cutterhead body (not carbide insert) just touches straightedge.

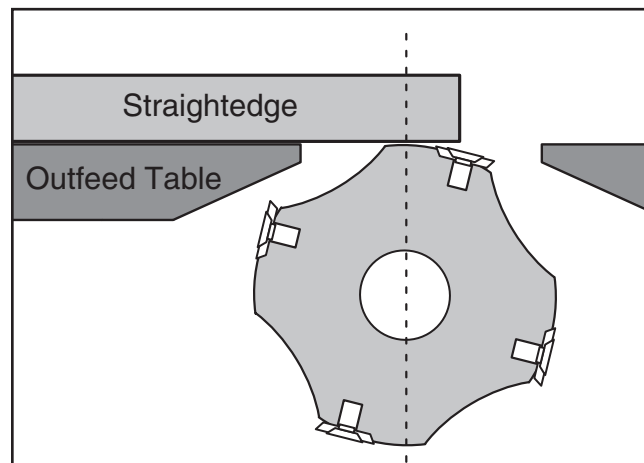


Figure 10. Checking cutterhead parallelism.

22. Move straightedge to other side to determine if one end of cutterhead body is higher/lower than the other. (Place feeler gauge between cutterhead body and straightedge to determine height difference.)

—If cutterhead is even or within 0.004" with outfeed table from one side to the other, skip to **Step 25**.

—If cutterhead is over 0.004" from one side to the other, go to **Step 23**.

23. Loosen cap screws securing bearing blocks, lift helical cutterhead slightly, then place a shim beneath bearing block that needs to be adjusted.

Note: Use shims from your old cutterhead if available. If not available, newspaper is approximately 0.003" thick and will work for shimming. We don't recommend shimming more than 0.004" on either side, as this may affect how the bearing block seats in the casting.

24. Repeat **Steps 21–23** and adjust if necessary, then tighten cap screws on bearing block studs.



25. Re-install V-belt on pulleys. (Refer to instructions in your jointer manual for details.)
26. Place straightedge on outfeed table so it extends over cutterhead, and rotate cutterhead pulley until one of the carbide inserts is at top-dead-center (TDC), as shown in **Figures 11 & 12**.

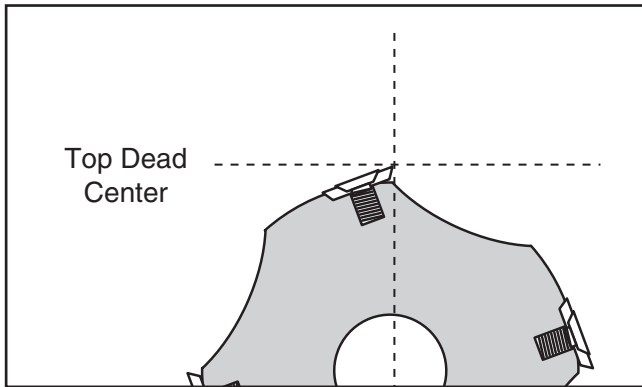


Figure 11. Cutterhead insert at top-dead-center.

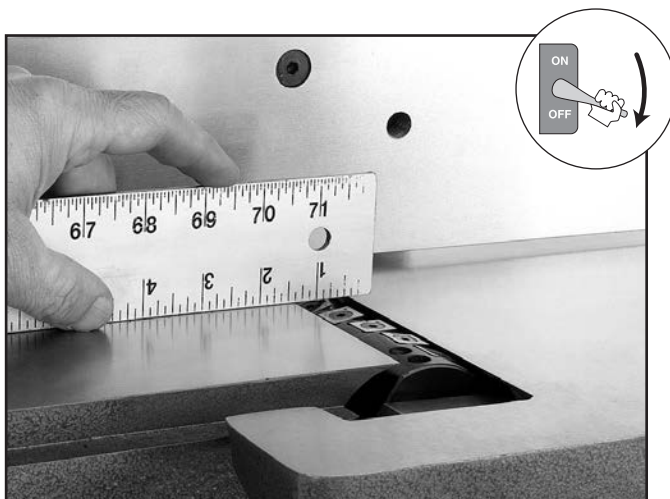


Figure 12. Setting outfeed table height.

When correctly set, carbide insert will just touch straightedge when insert is at its highest point of rotation (see **Figure 13**).

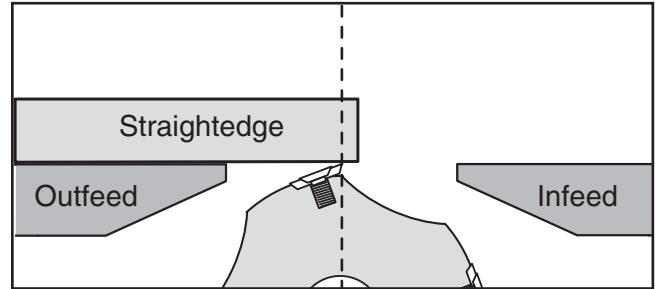


Figure 13. Using a straightedge to align outfeed table height with insert at TDC.

- If your outfeed table is correctly set, no adjustments are necessary.
- If insert lifts straightedge off table or table is below straightedge, adjust outfeed table height with outfeed table adjustment lever until straightedge just touches an insert at its highest point of rotation.

27. Lock outfeed table, then re-install fence.
28. Install cutterhead guard back over cutterhead, making sure spring tension in guard is properly set so guard springs back over cutterhead when it is pulled back and released.
29. Re-adjust infeed table.
30. Re-install rabbet extension table, belt cover, and rear cover.
31. Reset positive stop bolts on infeed and outfeed tables.



Rotating/Changing Carbide Inserts

Tools Needed:

L-Handle Torx Driver T20 1

Each insert can be rotated to reveal any one of its four cutting edges. Therefore, if one cutting edge becomes dull or damaged, simply rotate it 90° to reveal a fresh cutting edge (see **Figure 14**).

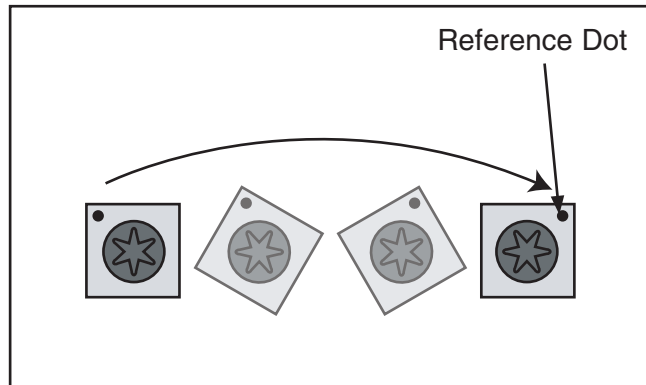


Figure 14. Rotating indexable carbide inserts.

In addition, each insert has a reference dot on one corner. As the insert is rotated, the reference dot location can be used as an indicator of which edges are used and which are new. When reference dot revolves back around to its starting position, the insert should be replaced.

To rotate or change a carbide insert:

1. DISCONNECT MACHINE FROM POWER!
2. Remove any sawdust from head of carbide insert Torx screw.
3. Remove Torx screw and carbide insert.
4. Clean all dust and dirt off insert and cutterhead pocket from which insert was removed, and replace insert so a fresh, sharp edge is facing outward.

Note: Proper cleaning is critical to achieving a smooth finish. Dirt or dust trapped between the insert and cutterhead will slightly raise the insert, and make a noticeable marks on your workpieces the next time you plane.

Accessories

G8995—4" Heavy Duty Pulley Puller

Indispensable for pulling gears or pulley off of press-fit shafts. Can be used in either a 2 or 3 jaw configuration. The 4" jaw fingers are also reversible so they can grab an outside or inside diameter. The forcing screw has a live center and is made of tough hardened steel.

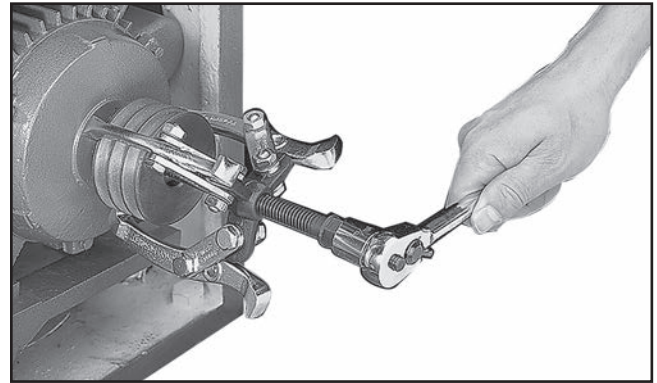


Figure 15. G8995 4" Heavy Duty Pulley Puller.

T27714—10 Pack of Indexable Carbide Inserts

Replacement 15 x 15 x 2.5mm carbide inserts for T27697 and T27699 cutterheads.

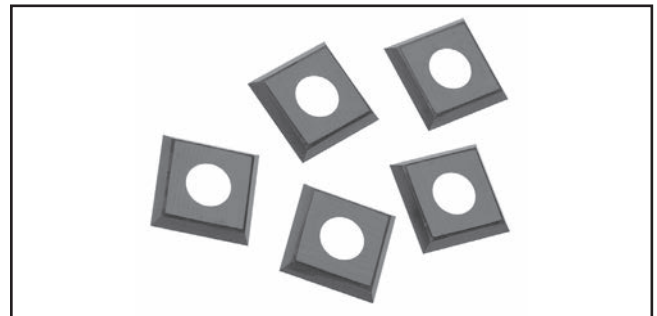


Figure 16. T27714 Indexable Carbide Inserts.

G9644—12" Precision Straightedge

H2675—16" Precision Straightedge

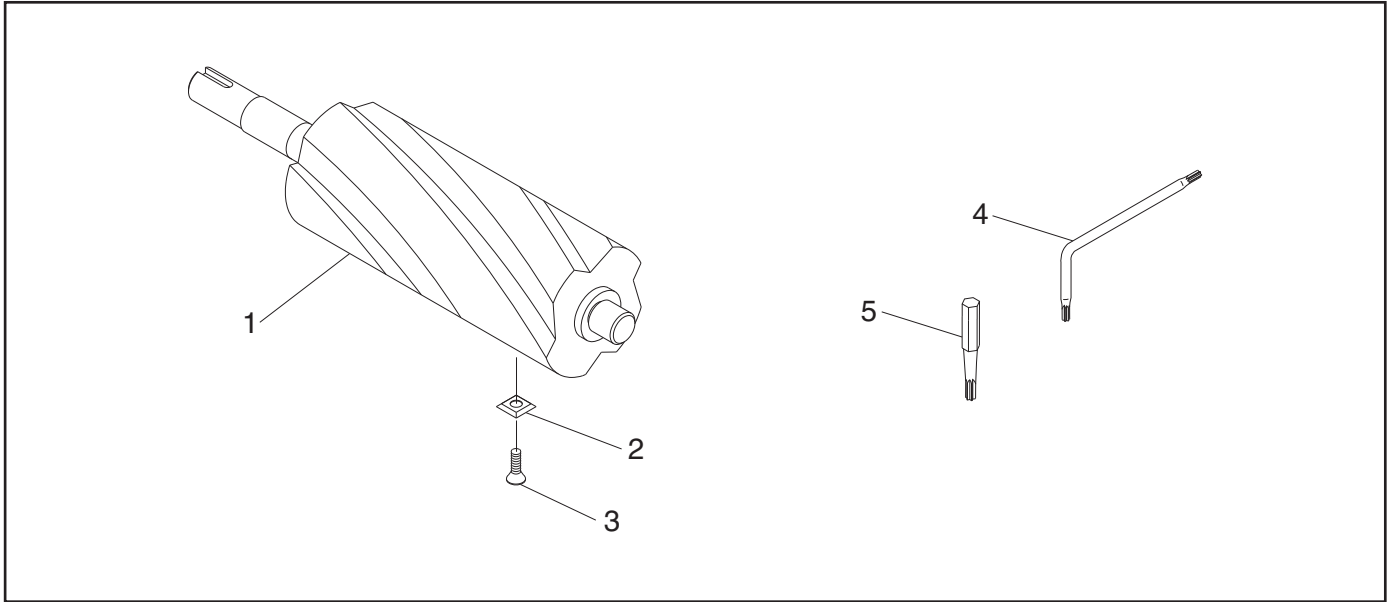
Is your straightedge really straight? These grade 00 heavy-duty stainless steel straightedges are manufactured to DIN874 standards for professional results in setup and inspection work.



Figure 17. Precision straightedges.



Parts Breakdown and List



T27697 Parts

REF	PART #	DESCRIPTION
1	PT27697001	HELICAL CUTTERHEAD 8"
2	PT27697002	INDEXABLE INSERT 15 X 15 X 2.5
3	PT27697003	FLAT HD TORX SCR T20 M6-1 X 15

REF	PART #	DESCRIPTION
4	PT27697004	L-WRENCH TORX T20
5	PT27697005	DRIVER BIT TORX T20

T27699 Parts

REF	PART #	DESCRIPTION
1	PT27699001	HELICAL CUTTERHEAD 6"
2	PT27699002	INDEXABLE INSERT 15 X 15 X 2.5
3	PT27699003	FLAT HD TORX SCR T20 M6-1 X 15

REF	PART #	DESCRIPTION
4	PT27699004	L-WRENCH TORX T20
5	PT27699005	DRIVER BIT TORX T20





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